UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III

IN RE: ELIZABETHTOWN LANDFILL SUPERFUND SITE

TRANSCRIPT OF PROCEEDINGS
PUBLIC MEETING

BEFORE: TERRI WHITE, COMMUNITY INVOLVEMENT FACILITATOR

DATE: AUGUST 23, 1995, 7:00 P.M.

PLACE: ELIZABETHTOWN MUNICIPAL BUILDING
600 SOUTH HANOVER STREET
ELIZABETHTOWN, PENNSYLVANIA

PRESENT:

SHERRY GALLAGHER
DAWN IOVEN
BRUCE RUNDELL
JEFF SILAR
ART DALLA PIAZZU
ANTHONY DAPPOLONE

HELENA BOWES, REPORTER
NOTARY PUBLIC

MS. WHITE: Good evening, my name is Terri White, I am the community involvement facilitator with the U. S. Environmental Protection Agency Region III office in Philadelphia. We are here tonight to discuss with you the proposed plan we have for cleaning up the Elizabethtown Landfill Superfund Site.

I want to make a note that we are in a public comment period which began July 28th and it ends September 26th, and any comments that you make tonight, any concerns that you express to us tonight, will be documented and recorded by us, we have a court stenographer here tonight.

Once we do select a cleanup remedy we will address any comments that we received tonight and any comments that we received in the EPA office, any written comments, in a document which we call a responsiveness summary. So, again, the responsiveness summary will document all public comments and provide EPA responses to those comments.

Before I get started I'd like to introduce to you some other members from the EPA staff and some members from the Pennsylvania Department of Environmental Protection. Sherry Gallagher is the EPA project manager and she oversees the day-to-day activities going on at the E-town site.

Dawn Ioven is here, Dawn is EPA's toxicologist. Bruce Rundell is EPA's hydrogeologist, Mr. Anthony Dappolone is the chief of the central Pennsylvania section within EPA's hazardous waste division and Mr. Jeff Silar from the Pennsylvania Department of Environmental Protection, like Sherry, he is responsible for overseeing the day-to-day superfund activities at the Elizabethtown site. And we also have Mr. Art Dalla Piazzu, and he is the hazardous sites cleanup manager for the state.

I'll give you a brief overview on the superfund program. What is a superfund site? A superfund site can be a municipal landfill, which is what we have here in Elizabethtown, a superfund site can come about as a result of an accident, which causes a type of contamination problem. Improper disposal practices in the past may have created superfund sites and also chemical, petroleum and industrial contamination can also be reasons for having a superfund site as well as emergency situations such as oil spills can create superfund sites.

EPA's hazardous waste division operates two types of programs under superfund, one is the emergency response program, which deals with immediate situations and then we have the remedial program. And the Elizabethtown landfill cleanup falls under the remedial program within EPA. And the remedial program addresses situations that

require long term cleanups, these are sites that require cleanups which may take between five to ten years, they are nonemergency situations and very often they costs millions of dollars to clean up.

Once a site is discovered EPA will do what we call a hazard ranking system assessment, and basically what that is is we determine the seriousness of contamination at a site, we look at various exposure pathways such as groundwater, surface water, soil and air and how, in fact, these things might be posing some type of exposure to residents living near a site or the environment surrounding that site.

If a site scores 28.5 or higher we will then propose that it be added to the superfund list or the national priorities list.

You may ask who pays for superfund cleanup. Initially what EPA will do is to try and identify any parties that may be potentially responsible for contamination at sites. If we're able to identify potentially responsible parties we will then ask them to participate in the study that we do at sites and also to eventually clean up those sites.

In cases where we don't have responsible parties or, in fact, we're not able to get responsible parties to participate in the cleanup process EPA may decide

to use the superfund to clean up sites.

There are cases where the state, in fact, may clean up sites and oftentimes the state does contribute to the funding at superfund sites.

This slide gives you a snapshot of the total superfund process, starting with the time that a site is discovered, the next phase is to investigate the site to determine the extent of contamination. The investigation that we do at superfund sites is called a remedial investigation, that's a very lengthy investigation that tells us what's present and it also, through the risk assessment, can tell us ways that communities may be affected by contamination at superfund sites.

Once we're done with the remedial investigation we do what we call a feasibility study. What that does is that it identifies various alternatives for cleaning up a site. When we're done with the feasibility study we will come up with what we call a proposed plan, a proposed remedial action plan. And that's where we are right now at the Elizabethtown site.

We have completed the investigation, we now have a proposed plan out on the street and we have, again, the comment period which allows the public to bring forth any concerns that they may have to us regarding the proposed cleanup plan.

After considering the comments that we get from the public EPA then makes a remedy selection. We refer to this as a record of decision which documents the clean up which we've selected.

Once we've selected the cleanup remedy the next phase involves designing the cleanup remedy and eventually implementing that remedy. And once we're done with the actual clean up we go into an operation and maintenance phase. But throughout the entire process one of the things we encourage is community involvement.

Again, this is your opportunity as members of this community to comment on the cleanup plan. You have until September 26th to do that. Sherry Gallagher will now give you a presentation on that cleanup plan and following her presentation we will open the floor up to any questions you may have and any comments you may have.

MS. GALLAGHER: Thank you, Terri. Good evening. As Terri said my name is Sherry Gallagher and I am EPA's project manager for the Elizabethtown landfill site. My role in the process is to coordinate and direct the technical work on the project.

For those of you who are unfamiliar with the site itself, the first thing I'd like to do is locate the site for you. And if you can see this map, feel free to move up closer, if you want to take a closer look at this. Just

to orient you, this is north. Elizabethtown is over here, this is Maytown Road and West Ridge Road, Valerie Drive, Ruts Road, West Bainbridge Road and the landfill itself is the area that's depicted in yellow on the map.

Some features that I am going to refer to throughout my presentation are Conoy Creek, which is marked in blue on the map and two small tributaries or feeder streams that feed into Conoy Creek. Conoy Creek flows in this direction further towards the Susquehanna River.

And those of you do not see the map too well, this is a simple schematic of what I just showed you on this more accurate map. Again, the facility layout -- down here at the bottom of the map is West Ridge Road, here's the driveway to the landfill site, the landfill is this area, this is Valerie Road and we have West Bainbridge Road at the top and Conoy Creek and the small tributaries on either side of the landfill.

Now just to give you a brief overview of the site itself, how this site became listed on the national priorities list and what happened at the site, this is a synopsis of the site history:

Prior to 1959 the site was a sandstone quarry. From 1959 to '73 it operated as an unlicensed landfill. In 1973, in response to some citizen involvement, the state ordered the owners and operators of the landfill

to cease operations, to cease landfilling operation and at that time the owners did stop landfilling, they continued to operate the site as a trash hauling facility, where garbage trucks were maintained and serviced and parked over night.

In 1976, Waste Management, Incorporated purchased the site through one of its subsidiaries. In 1986 Waste Management constructed some engineering controls at the site to prevent contaminants from leaving the landfill property. Then in 1994 the trash hauling facility closed and the site became inactive and it's currently inactive. At this point it's closed.

How the landfill exists right now, this is a relatively recent aerial photograph of the landfill site. Again, to orient you, this is north, West Bainbridge Road, Ridge Road, the landfill itself. The property or the landfill itself is 16 acres in size, about 16 acres. It's currently surrounded by a security fence and there is a clay cap or a cover that's over the northern three-quarters of the landfill.

There's also an existing leachate collection system. A leachate collection system is an underground drainage system that is designed to collect any pollutants that come out of the landfill and go down into the groundwater. There's also a surface water collection system that collects runoff from the northern portion of the

landfill. There's trenches along the side of the landfill, both sides that run into a sedimentation basin to control runoff from the landfill.

The same features are depicted on this map, once again, the cover, if you couldn't see this aerial photograph, the cover presently covers three-quarters of the landfill, the northern portion of the landfill, there's runoff control on both sides and an existing sedimentation pond and fenced area.

Terri spoke briefly about a remedial investigation, I think the last time I came out to speak to you folks -- I see some familiar faces in the audience -- I described what EPA was doing in its remedial investigation.

The purpose of a remedial investigation is to define the nature and the extent of contamination at a superfund site. As Terri explained, we're finished that process now, but so that you can understand what went into that and what the findings are of that investigation I thought it would be a good idea to very briefly explain what studies were involved in the remedial investigation.

One of the first field tests or field procedures that was used was to actually determine the limits of the waste in the landfill itself. And how EPA went about doing that was to study historical photographs,

aerial photographs such as this one, but that went back through time, so we could actually see what area was disturbed and what area was used to dispose of wastes.

Once we completed our aerial photographic review we then went to the site and wanted to confirm what we expected were the limits of the contamination. We -- and the way that we confirm those limits was actually to go out to the site and dig with a backhoe in the areas that we expected were the outer limits of contamination to verify where waste was placed and where undisturbed soil was.

And this overhead shows the different areas where we investigated with a backhoe and actually dug trenches to find out what the limits of the waste were, so we were certain that we could define the area that contained waste and would possibly contain contamination.

One of the other procedures that we used was to sample the surface water. When I say surface water, I'm referring to any water that you can see at ground surface such as, as these small tributaries, Conoy Creek itself and any other surface water bodies around the site.

We collected water samples from these surface water bodies and had them analyzed in a laboratory to determine if there were contaminants that were potentially coming from the landfill.

And this overhead depicts our sample

locations, we picked in Conoy Creek locations that were upgradient of the landfill site, unaffected by the landfill and compared to concentrations downgradient or downstream in the creek to determine if there was any increases in concentration. We also sampled the tributaries leading into Conoy Creek and the sedimentation basin itself.

One of the next procedures that we used was to actually sample the soil around the landfill to determine whether contact with any of the soil presented a threat to human health or the environment. And we, again, analyzed aerial photographs to determine what areas might be impacted, where contamination might lie on the surface soil so that if people came into contact with it to determine what risks those -- that contact would pose. And this map shows the locations of soil samples that were collected and analyzed in the laboratory.

We also monitored air around the landfill to determine if there were any pollutants in the air that could impact human health of people that lived around the landfill site.

And one of the final -- one of the final procedures that we used and the most time consuming procedures was to actually drill wells at the site. And by drilling wells the purpose of that process is to -- it's a many fold purpose. One of the first purposes is to collect

rock samples and soil samples as we are we drilling to understand the geology underneath the site and understand how water flows underneath the earth near the landfill.

We also, in the wells that we installed, conducted groundwater tests or aquifer test to understand how the water moves in and around the landfill. And we also collected groundwater samples. When I say groundwater, that refers to any water that's below the ground surface such as water that you would get out of your private well. So we did collect samples from these wells and then had the samples analyzed in the laboratory.

As you can probably see from this overhead, there's quite a bit of groundwater sampling that took place at the landfill. There were actually 45 sample locations, each depicted by a purple dot on the map. The ones with the open circles are private wells and private homes and the closed circles are monitoring wells that were drilled or installed specifically for this study.

In total there were 45 wells and we did three rounds of sampling in each one of those wells, that was done on a seasonal basis. For each sample we collected we had the samples analyzed for 175 different chemicals or analytes, so with the 45 wells, 175 chemicals per well and three rounds of sampling, you can understand that generates a lot of information, quite a bit of information that then needed to

be compiled and analyzed.

And for any of you who have taken the time to go visit our site repository and look at our remedial investigation report, I think you'll notice that the remedial investigation report itself is a very voluminous document, it's three different volumes that are quite thick and all the data is contained in that report that is available if anyone would like to look at it.

I trust that many of you are not interested in reading all the details in the report so I will summarize and tell you what the findings of our study are.

The primary finding is that the groundwater in and around the site is contaminated with pollutants from the landfill and the pollutants exceed regulatory cleanup levels.

The most prevalent contaminants found in the groundwater are those listed here. The first three contaminants are the ones that were found in the highest concentrations or the concentrations that actually pose the greatest risk, health risk at the site. Those contaminants are chlorobenzene, benzene and vinyl chloride.

To give you an idea of the levels of contamination found I've made a reference to a value called a maximum contaminant level. That level is a safe drinking water limit, that is the concentration of a contaminant

that's allowed to be present in any public water supply well. And at the site, for the first three contaminants we found that the concentrations are about ten times the safe drinking water limit.

The other contaminants that are listed up there were also found at the site but in lesser concentrations that pose lower risks to human health. These are different chemical compounds, these elements are metals that were found at the site. (Indicating.)

One of the next findings of the remedial investigation report is that the surface water in and around the landfill is contaminated with hazardous substances, with pollutants that exceed regulatory cleanup level. And when I refer to the surface water, again, it's these tributaries to Conoy Creek and Conoy Creek itself.

What this figure depicts is a rough presentation of the area of the groundwater that we found to be contaminated. Again, to orient you, this is West Ridge Road, West Bainbridge and Ruts Road, the landfill boundary is indicated here in red. This red crosshatched area is what we call the plume of contamination, that is the area under which the groundwater is contaminated. This yellow area is also an area of contamination but it's much lower concentrations and when you get to the very boundaries of it the contamination is no longer detected.

In general, the groundwater in and around the landfill migrates down the hill, from West Ridge Road it travels down the hill towards Conoy Creek and then follows the direction of flow of Conoy Creek. So, as you can see from the outline of the plume of contamination, if you consider that the landfill is the center of contamination, the contamination is migrating a bit outward, but generally traveling in this direction or migrating in this direction.

Now, once EPA understood this information, the real nature and extent of the contamination at the site, we were able to use this information to conduct what we call a risk assessment. And the purpose of the risk assessment is to evaluate the threats to human health and the environment from the contamination.

It's a very complex process done by toxicologists who have specialized degrees in that field. The risk assessment report is contained in the information repository if anyone would like to study it in detail. But in general what the findings of the report were is that there are no current risks to human health from the landfill that exceed EPA action levels.

If we take a look at where the plume of contamination is located, to orient you, the homes that are most impacted from the landfill site is actually -- actually it's not a home, it's a structure, it's a veterinary clinic

that's right off the West Bainbridge Road. There's also a property right here, right in front of the veterinary clinic that is in an area of low level contamination from the site.

Other properties that were of concern to EPA are these along West Bainbridge Road, the next two residences along West Bainbridge Road, however, they are really outside of the area of contamination from the landfill.

There's also two other public water supply wells located in this direction where the plume is indicated to be moving and these are the Masonic Home's private water supply well, one located right here and another one located right here.

Now going back to our risk assessment what I had said is that there is no current risk posed by the landfill site that requires an action from EPA. As part of its regulatory process and part of its authority, when EPA makes decisions as to whether or not to require an action at a site, a cleanup action, we also consider future risk, and what EPA has determined is that there is a future risk that requires an action at the site.

The thinking behind that, the rationale behind that is that this area of contamination can migrate, can move closer in these directions toward the residential wells and also further in this direction where this property

could be developed, wells could be installed and people's health could be impacted. Also, there's a concern about migration toward the Masonic Home's well if no action is taken at this point.

What do all these findings mean in terms of the superfund process, is that based on the findings of the remedial investigation and the risk assessment EPA does have the authority to require a cleanup action at this site. And we have presented our preferred alternative for cleanup in our proposed plan document, that, again, is available in the administrative record file and I also have copies here if anybody would like to take a copy home with them tonight.

So you can understand what EPA's approach is for evaluating cleanup alternatives it's first important to understand what the goals of our cleanup action are. There are two primary goals, the first of which is to cleanup contaminated groundwater and surface water; the second is to control the migration of contaminants from the landfill.

And we evaluated a great number of alternatives that were designed to meet these cleanup objectives. One common element of all the different cleanup alternatives that we considered is extracting the contaminated groundwater.

If we went back to my last overhead, the common element in all the different cleanup alternatives is

pumping or extracting the contaminated groundwater. For the area that's shown to be contaminated the idea is to install wells such as your own private home wells that are capable of pulling the water out of the ground, the contaminated water out of the ground. Once we pump that water out of the ground we can then treat the water to remove the contaminants.

So once EPA determined that the key to cleaning up this site was pumping or extracting contaminated groundwater and then treating it several different alternatives were considered for treating that water.

One of the first alternatives that we considered was treating the water at the existing Elizabethtown Wastewater Treatment Plant. The plant -- the existing plant is very close to the landfill site, here is the landfill site, sewage treatment plant right here. It seemed like a nice solution to be able to extract the water, pump it out of the ground, send it over to wastewater treatment plant for treatment to remove the contaminants.

The problem with that option is that the existing wastewater simply isn't designed to remove the contaminants that we have at the site, so it wouldn't be effective in removing the contaminants and taking those contaminants out of the water.

So EPA then evaluated other options for

treatment and the option that we prefer is to build a treatment plant on the Elizabethtown landfill site that is specifically designed to remove the site related contaminants.

That plant would include three different processes to remove the site related contaminants. There would be a metals removal process, followed by what's called an air stripping where a tower actually strips the contaminants out of the water, that tower would have air controls on it and then the final process would be a carbon absorption polishing process.

Now, this plant would have to be designed and built specifically to remove these contaminants. The discharge from the treatment plant would go into Conoy Creek, the treated water would be released into Conoy Creek. The discharge from that plant would be monitored and regulated.

And, once again, the plant would be designed such that there would no impacts on the creek itself, all the contaminants would be removed so that there would be no ecological impacts to the creek.

This overhead lists the components of the alternative that EPA prefers for the remedy at the site. Again, the first two elements are to install the groundwater extraction system. The next is to construct the on-site

groundwater treatment plant that's designed specifically to remove the contaminants found at the site.

The next component is to install a cap or a cover on the southern portion of the landfill. You can see from the aerial photograph that I referred to before, this southern portion of the landfill is currently uncapped, it has a gravel -- actual a parking lot there now and we would require that that be covered or capped to prevent water from getting into the landfill.

The next component would be to upgrade the existing cap on the northern portion of the landfill and that is this area of the landfill. There is a cap on this portion of the landfill currently, however, EPA would require that this be upgraded to meet existing Pennsylvania regulations for municipal landfills.

The next component is to upgrade and maintain the storm water runoff controls. This uncapped portion of the landfill presently does not have sufficient storm water runoff to contain any water that falls on this property and there's been a problem with water going off to adjoining properties. Part of constructing this new cap would be proper drainage control on this portion of the landfill and also to maintain the drainage control on the other -- the northern portion of the landfill. We'd also would have the security fence expanded to include the entire landfill

property.

One of the findings of our trench work, where we were actually determining the limits of the waste in the landfill, we discovered that a portion of the landfill -- the waste from the landfill is actually on Masonic Home's property, on this side of the landfill, and that is currently not fenced in. The remedy would also require maintenance of that security fence.

Another element of the preferred alternative is to operate and maintain the existing methane collection system and the leachate collection system and to maintain the landfill cap or cover once it's upgraded.

Another component of the preferred alternative is to provide drinking water, bottled drinking to five residences around the landfill that currently receive bottled water and to monitor the private wells in those homes.

Also the final element is to monitor the groundwater around the site and the surface water to make sure that the remedy, the groundwater extraction and treatment system is working and that the contamination from the landfill is not spreading.

The cost of this alternative is estimated to be 26 million dollars. The various alternatives that EPA considered for cleaning up the site range in cost from 7

million dollars to 31 million dollars and, again, the alternative that we prefer is estimated to cost 26 million dollars.

That concludes my technical presentation. At this point I'd like to turn the meeting over to Terri who will entertain questions and comments.

MS. WHITE: As you stand up or, if you're going to remain seated, I'd ask you, as you present your question or your concern, it would be helpful for us if you identified yourself as either a resident in the area or as representing some other entity. So we will now open it up for any questions or concerns you may have for us.

MR. HELM: Dan Helm, H-e-l-m, and I'm a resident. I was fortunate enough to receive the proposed plan, so I probably have a little information here, it's already, I believe -- Sherry has already gone into most of this and I have it in writing and I don't think most of do you.

Under summary of preferred alternatives, one of the things that was not shown on the overhead was the establishment of deed restrictions to protect remedial systems and prevent future exposure. Can you explain that a little bit, Sherry?

MS. GALLAGHER: Yes. Establishment of deed restrictions is something that EPA commonly includes in its

records of decisions or its selected alternatives for landfill sites. The purpose of a deed restriction is really to protect the integrity of the landfill cap and prevent any uses of the property that would disturb that cap and allow water to get into the cap, get into the landfill, migrate and allow contamination to spread.

The way that process typically works for what we call institutional controls is that in its record of decision EPA recommends that institutional controls be put in place. EPA does not have the authority to actually implement those deed restrictions. We make recommendations to the state that deed restrictions are appropriate. The state, in turn, makes recommendations to the local municipality that has the authority to put deed restrictions into effect.

Deed restrictions that we have seen been put into effect at landfill sites prohibit the installation of private wells into a property, such as on top of a landfill that would prevent someone from drilling, a well into a contaminated area, also any type of construction that would disturb the integrity of the landfill cap.

MR. HELM: So if you've made your recommendations the state, in turn, has made their recommendation to the municipality, in this case, it would be West Donegal Township.

MS. GALLAGHER: Correct.

MR. HELM: And they chose to ignore that recommendation? What are the ramifications of that? Then we have the potential for disturbing the cap, am I correct, and therefore spreading the contamination.

MS. GALLAGHER: Yes, that potential exists if the deed restrictions are not put in place and if the owners of the landfill are not interested in protecting the integrity of that cap.

Typically, the owner of the property has invested quite a bit of money in implementing the remedy. As you saw in this case, the remedy itself is estimated to cost 26 million dollars. So it typically is in the interest of the party that expended that money to see that the property is properly maintained and so that the contamination does not spread.

MR. HELM: So it would not be a very wise decision on their part to ignore the recommendation; correct?

MS. GALLAGHER: Correct.

MR. HELM: Okay.

MS. GALLAGHER: But it is the local municipality that has the authority to require the deed restrictions.

MS. WHITE: Any other questions, comments?

Ms. PEPPERMAN: Robin Pepperman, P-e-p-p-e-r-m-a-n, Robin, R-o-b-i-n. I represent the Masonic Homes. One of the questions I have specifically is when you show the extent of the plume extending into the Masonic Home's property, is that a computer generated model that gave you that estimation that the extent of contamination existed where it did?

MS. GALLAGHER: This overhead is a generalized diagram. It's very difficult in groundwater studies to define precisely the extent of contamination at any site. The reason being is when you get to the outer limits of the contamination, in order to define this line precisely you would need to have a well located all along the perimeter so that that line could be drawn.

This is also a very simplified drawing, it was based on information taken from many different monitoring wells around the site that collect water samples from different elevations under the landfill.

This is something that is a very simplified presentation of where the contamination is located and it's taken from much more detailed diagrams that are presented in the remedial investigation report.

Is there anything you'd like to add to that, Bruce?

MR. RUNDELL: As far as the Masonic lodge

property, if you notice where the plume starts to thin out there is the one green well, that is the last well, in a sense, towards the Masonic lodge property. And from that point we extrapolate in that direction how far the plume might go. We know it's at the green point, exactly, if it goes as far as the yellow shows it goes is an interpretation.

MS. PEPPERMAN: You also wouldn't know if it really went beyond that.

MR. RUNDELL: Right, because the Masonic wells have been sampled in the past --

MS. GALLAGHER: Something that may not show up clearly on this diagram, this is actually dashed and has some questions marks in here because the exact limits are not precisely defined.

MR. RUNDELL: But we do know it's headed in that general direction, so we extended it out some distance and its really how far you want to draw the line.

MS. WHITE: Any more questions?

MR. HELM: You've covered cancer risk due to the future use of groundwater. You've touched on that a little bit. There's also the noncancer risk due to the future use. In particular, it's the ingestion of groundwater containing high levels of manganese.

Can you enlighten us a little further on what

that risk might be, the ingestion of the high levels of manganese?

MS. GALLAGHER: Yes. I will turn that question over to a much more qualified person to speak on that subject, and that is Dawn Ioven, who is our toxicologist.

MS. IOVEN: First, let me explain how risks are calculated or determined. For a chemical such as manganese there is a value known as a reference dose, a toxicity value that has been established through usually studies involving experimental animals, sometimes through epidemiologic studies involving exposure to a particular chemical that allows scientists to determine what dose of a chemical could pose an adverse health effect upon exposure.

The reason I give you this background is because, in the case of manganese, that toxicity value or reference dose is questionable. There are studies that -- there is a study done in Greece that indicated that manganese is absorbed to a much greater degree than previously thought, therefore, the toxicity value for manganese was lowered, meaning that it doesn't take very much manganese to promote an adverse health effect in people that are exposed.

That study from Greece has been under a tremendous amount of scrutiny and has been found to be flawed.

The current thinking on manganese is that perhaps it is not as toxic as previously thought. Now, this is all unfolding information. I only present this because the levels of manganese that were found in the residential wells surrounding the site are very borderline based on the toxicity of manganese, the final determination of toxicity of manganese.

The concentrations that were found underlying the landfill were very high, irrespective of whether the toxicity value for manganese is lowered or not, those concentrations pose a health risk.

Now let me answer your question.

MR. HELM: Okay.

MS. IOVEN: The adverse health affects associated with manganese exposure usually involve impacts to the central nervous system, chronic exposure to low levels of manganese, that is exposure to low doses over a long period of time are associated with things like that disorientation, symptoms that mimic Parkinson's disease, a type of psychosis. So mostly it's mental changes, hallucinations, things like that that are associated with long term manganese exposure.

Children seem to be more susceptible than adults, which is the case for many chemicals. But that is generally it. I mean that is our concern with manganese, the

central nervous systems effect.

MR. HELM: Would this be just from ingestion or would this also be from absorption through the skin?

MS. IOVEN: Manganese is not absorbed a great degree through the skin. And in the case of this site, it would be from ingestion. Inhalation could be another pathway but that is usually associated with occupational exposure.

MS. WHITE: Does anyone else have a question or comment that they'd like to make?

Okay, I'll close with some notes. We have a sign-in sheet, if you haven't signed it, we would appreciate if you did sign it. Number one, it allows to us document how many people showed up and whether or not those of you who showed up were mostly residents or were you representing some other entity.

Also, we have a fact sheet that describes the proposed cleanup plan and that is also on the ledge for you to take with you. If you want to take some additional fact sheets to give out to your neighbors or coworkers, we would appreciate that as well.

Again, we are in the midst of a public comment period, we will accept written comments from you. If you send them in through the mail they must be postmarked no later than September 26th.

Also Sherry mentioned that the proposed plan is located in the information repository which is at the West Donegal Township building. So, if what you find in the fact sheet doesn't give you enough detail, you want more detail, you can look at the proposed plan, you can also look at the studies and reports that have been done in the past on this site.

MR. HELM: One more quick question. What can we expect next? What's the next step? What kind of time frame are we looking at? Any idea?

MS. WHITE: The next step, once the comment period closes and we review all the comments that we've received, either in the mail and any that you've addressed tonight, we will select the cleanup remedy. So, again, let me emphasize that we do consider the public's comments before we make that final decision. But when we do make it, it will come out in a document known as the record of decision.

I will place notices in the local newspapers announcing that the decision has been made and a brief explanation as to what that decision is as far as the cleanup remedy is concerned.

Once we do that we will place the document in the information repository located at the township building and you will have an opportunity to go review that, you can

also review the responsiveness summary which documents the public concerns and EPA's responses to those comments.

And from there we move into the next phase, which is the remedial design phase, but, in between that you have negotiations with the potential responsible parties, and those typically take a while.

MR. HELM: Who is the PRP in this case, just for the record?

MS. GALLAGHER: The PRP that conducted the work for the remedial investigation with EPA oversight is SCA Services of Pennsylvania, which is a subsidiary of Waste Management, Incorporated.

MR. HELM: In this case is there more than one PRP?

MS. GALLAGHER: Yes, yes.

MR. HELM: Is there anybody else on that list that we ought to have on the record?

MS. GALLAGHER: For the upcoming negotiations there are many more PRPs, there were actually seven PRPs identified for the first round of negotiations. Of those seven PRPs identified only the one PRP, SCA Services of Pennsylvania chose to enter into an agreement with EPA to conduct the remedial investigation.

Since the remedial investigation has been under way EPA has had a civil investigator working to

identify other responsible parties, other parties that sent waste to the landfill site that are liable parties. There had been more PRPs identified. I don't know the precise number, I think it's somewhere around 20 PRPs at this point. And I don't recall specifically who those PRPs are. But if you want to call me, my telephone number is on the fact sheet, that's public information that I would be able to provide.

MR. HELM: That's probably also in the repository at West Donegal Township?

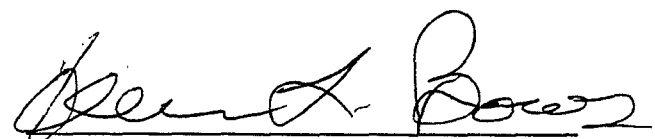
MS. GALLAGHER: No, that isn't, because it's work that's coming after the proposed plan was issued.

MS. WHITE: I'll go one last time. Questions, comments?

Okay, we thank you for coming out to the meeting tonight. Again, if you have any questions, you can call me, I'm also listed in the fact sheet, we have a 1-800 hot line for you to call. Also, Sherry is listed in the fact sheet, you can give her a call as well. So thank you.

(The hearing was concluded at 8:01 p.m.)

I hereby certify that the proceedings and evidence are contained fully and accurately in the notes taken by me on the within proceedings and that this copy is a correct transcript of same.



Helena L. Bowes, Reporter
Notary Public